

Customer No.: 31,561
Application No.: 10/709,038
Docket No.: 09005-US-PA

REMARKS

Response to 35 U.S.C. 121

The Examiner issued a restriction requirement. According to the Office Action, there are patentably distinct groups and species in the claimed invention and a restriction to one of these species of the elected group in claims is required under 35 U.S.C. 121.

According to the species made by the Office Action, Applicant elects the Species 1 as specified in claims 1-6 and in paragraph [0017] of the present invention with traverse. Please withdraw claims 7-20 without prejudice, disclaimer or waiver.

According to MPEP 806.03 [R-3], "Where the claims of an application define the same essential characteristics of a single disclosed embodiment of an invention, restriction therebetween should never be required. This is because the claims are not directed to distinct inventions; rather they are different definitions of the same disclosed subject matter, varying in breadth or scope of definition...."

As a result, claims 1, 7, and 14 should be considered as claims which define "the same essential characteristics of a single disclosed embodiment of an invention." The "same essential characteristics of a single disclosed embodiment" which are found in ALL of claims 1, 7, and 14 as well as found in all of Species 1-3 identified in the Office Action are as follows:

- A) "providing a substrate; forming an insulating layer, a first amorphous silicon layer and a cap layer over the substrate;"
- B) "performing a first annealing to transform the first amorphous silicon layer into

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a first polysilicon layer with at least a hole;"

C) "removing the cap layer;"

D) "removing a portion of the insulating layer within the first* hole to form a first opening within the insulating layer, wherein the first* hole and the first opening constitute a second opening" (*Note: Although claim 14 has "the first hole" instead of "the hole", they are still can be considered equivalent.)

E) "forming a second amorphous silicon layer over the first polysilicon layer and filling the second opening"

F) "performing a second annealing and forming a second polysilicon layer"

The aforementioned "same essential characteristics of a single disclosed embodiment" are fully supported in paragraphs [0013]-[0015] of the present invention.

Therefore, Applicant deems that Species 1-3 and claims 1, 7, and 14 are NOT patentably distinct to each other and that "rather they are different definitions of the same disclosed subject matter, varying in breadth or scope of definition."

Wherein, the "varying in breadth or scope of definition" is fully supported by the following:

A) In claim 1, "... wherein a recess is formed over a portion of the second amorphous silicon layer over the second opening; and"

B) In claim 1, "..... by partially fusing the second amorphous silicon layer and the first polysilicon layer, and taking an unfused portion of the second amorphous silicon layer as seeds for crystallization."

C) In claim 7, "..... forming a dielectric layer over the first polysilicon layer and

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filling the second opening, wherein a recess is formed over a portion of the dielectric layer above the second opening;"

- D) In claim 7, "..... by taking a portion of the second amorphous silicon layer within the recess as seeds for crystallization."
- E) In claim 14, ".... forming a dielectric layer over the first polysilicon layer and filling the second opening, wherein the dielectric layer surrounds a second hole within the second opening;"
- F) In claim 14, ".... wherein a portion of the second amorphous silicon layer over the second hole is subjected to a higher temperature than other portion of the second amorphous silicon layer relative to the second hole."

In short, Species 1-3 are only "different definitions of the same disclosed subject matter, varying in breadth or scope of definition", are NOT patentably distinct, and are disclosed in claims 1, 7, and 14, respectively.

Applicant also reserves the right to pursue the subject matter of the non-elected claims in a divisional application if Applicants so choose.

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CONCLUSION

In view of the foregoing, claims 1-6 remain pending in the application. Favorable consideration and allowance of the present application and all pending claims are hereby courteously requested. In the event a telephone conversation would expedite the prosecution of this application, the Examiner is encouraged to contact the undersigned attorney to discuss the application.

Respectfully submitted,

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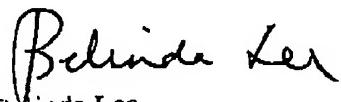
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CONCLUSION

In view of the foregoing, claims 1-6 remain pending in the application. Favorable consideration and allowance of the present application and all pending claims are hereby respectfully requested. In the event a telephone conversation would expedite the prosecution of this application, the Examiner is encouraged to contact the undersigned attorney to discuss the application.

Respectfully submitted,

Date Oct. 21, 2005


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